

Data Sheet

W2005 Series

5G Wideband

Adapter



Designed for fixed locations that require the higher performance of 5G and the flexibility of wireless, the Cradlepoint W2005-5GB is a key member of the W-Series 5G Wideband Adapter family that will usher in the next generation of Wireless WAN networking. The W-Series is designed to accommodate the diverse spectrums, multiple generations, and breadth of new technologies introduced in 5G while delivering enterprise-class standards of scalability, comprehensive management, and security.

Notable Benefits

- Increase the size and types of your WAN use cases with 5G performance
- Experience the dependability of dual connectivity with simultaneous 5G and 4G connections
- Gain carrier-class connectivity using a software-defined modem and integrated multilevel test and recovery utilities
- Deploy an enterprise-class 5G solution with greater simplicity and confidence with the wizard-based installation application
- Manage the Cradlepoint router and 5G adapter as one entity for singular control and visibility
- Evaluate the benefits of your 5G service with value confirmation tools built into the NetCloud Platform
- Deploy within any existing networking or SD-WAN environment

High Performance Wideband

The W2005-5GB 5G Wideband Adapter is purpose-built for outdoor deployment in the coverage and capacity spectrum layers. To address the tradeoff of lower propagation in the capacity layer, Cradlepoint designed the W2005-5GB to be placed on the outside of buildings for optimal signal reception.

Designed for Enterprise-Class Business

While the performance of 5G is top of mind, the W-Series was also designed with enterprise-class standards for high scalability, comprehensive management, and security. Because 5G is a collection of new spectrum, new technologies, and new network infrastructure that is rolling out over several years, the Cradlepoint 5G edge networking service and endpoints accommodate the diverse deployments of an organization with hundreds or even tens of thousands of sites.

Performance

IP Passthrough
Mode Throughput:

2.0 Gbps

Standard NAT
Mode Throughput:

2.0 Gbps

Captive Modem
Mode Throughput:

2.0 Gbps

Performance testing was conducted based on requirements as defined in RFC2544 using fixed-frame 1518 byte packets. Throughput results reflect uni-directional UDP traffic with less than 1% packet loss as tested with wired connections.

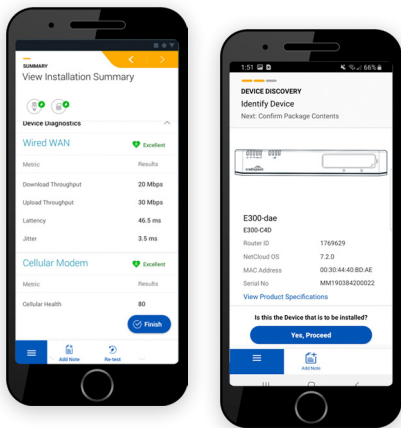
Results do not reflect performance of the cellular wireless operator networks.

Carrier-Class Connectivity

Although each network operator conforms to 3GPP standards, they implement those standards differently to gain optimal efficiency and performance from their network. Additionally, software from modem manufacturers is designed to serve multiple operators within broad markets. The W-Series uses a customized software-defined modem, pre-programmed endpoints, and multilevel integrity testing to predict vulnerable connections and deliver carrier-class connectivity.

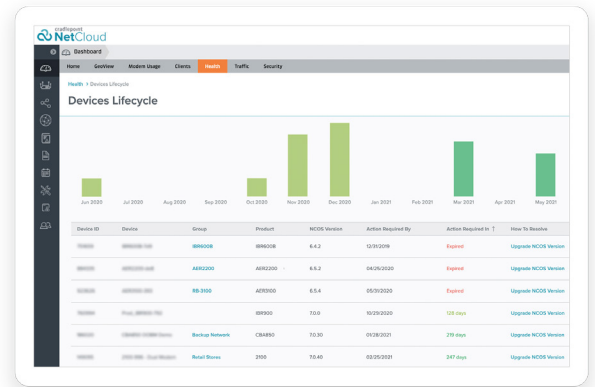
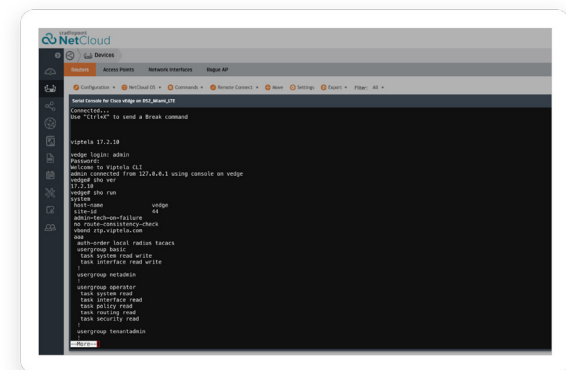
5G Spectrum Solutions

The W-series portfolio supports all spectrum layers ensuring that organizations have the right solution for every location. The W2000 and W2005 support low- and mid-band layers while the W4005 supports low-, mid-, and high-band layers.



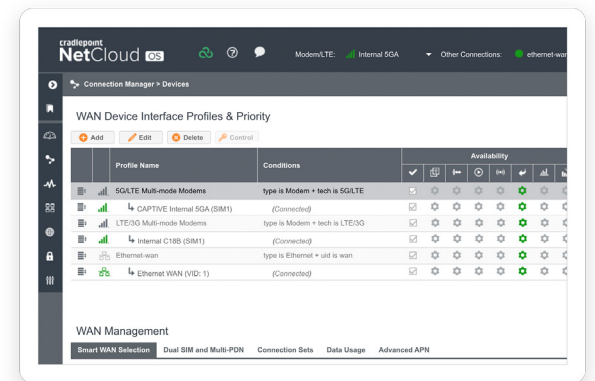
Complete Lifecycle Management

Cradlepoint 5G solutions help enterprises minimize complexity from installation to troubleshooting with tools and features such as the mobile installation application, the captive modem feature, 5G tools demonstrate 5G service value, and Out-of-Band Management.



Support for a Full Range of Cellular Technologies

Cradlepoint 5G solutions support all cellular generations, from 4G LTE to Gigabit-Class LTE to 5G — with the ability to gracefully transition tens of thousands of sites between generations as technology becomes available in individual locations.



Intelligent Hybrid WAN Connectivity

Cradlepoint 5G solutions deliver effortless wireless endpoint management in a “wired-first SD-WAN” environment and provides all-in-one capabilities (routing, embedded wireless, and foundational SD-WAN) in a “wireless-first SD-WAN” deployment.

Hardware Specifications

The following features are delivered through the hardware.

INTERFACES	
Modem:	Embedded 5G NR FR1 low-, mid-band, and 4G LTE Category 20 modem
Ethernet:	2 x 2.5 GbE RJ45 (LAN/WAN switchable)
Wi-Fi:	Single band 2.4 GHz <ul style="list-style-type: none"> — Endpoint setup only — 2 x 2 MU-MIMO 802.11ax Wi-Fi 6 — External 2 x 2 antennas — Global Safe Mode
GNSS / GPS:	GNSS Muxed to DIV0:L1, and MIMO2:L5
ENVIRONMENTAL	
Temperature:	Operating: -30 °C to 70 °C (-22 °F to 158 °F) Storage: -40 °C to 85 °C (-40 °F to 185 °F)
Humidity:	Operating: 10% to 90% Storage: 5% to 95%
Ingress Protection:	IP67 (dust tight and water emersion up to 1 meter)
Wind / Shock Rating:	134 MPH sustained wind rating

POWER	
Required:	PoE++ <ul style="list-style-type: none"> — PoE power injector included — 802.3bt PSE Type 4 (100 W)
Consumption:	— 802.3bt Class 8 PD (90 W)
PHYSICAL	
Size:	323 x 300 x 79 mm (12.72 x 11.8 x 3.11 in)
Weight:	4.9 kg (10 lb 12.8 oz)
CERTIFICATIONS	
Safety:	UL/cUL, CB Scheme
Materials:	WEEE, RoHS3
LEDs	
Refer to the W2005 Outdoor 5G Wideband Adapter Quick Start Guide .	

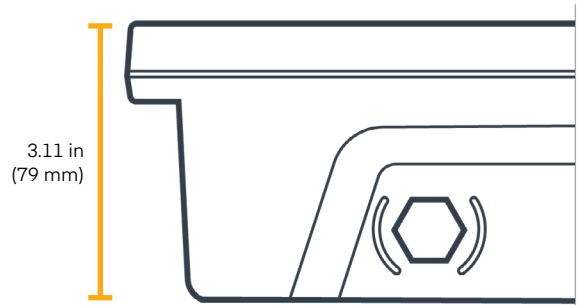
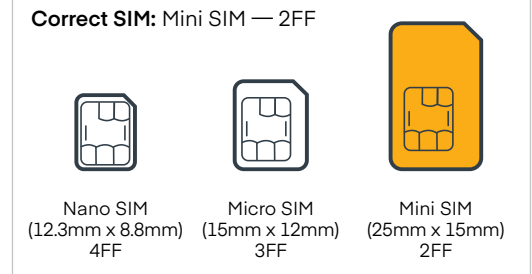
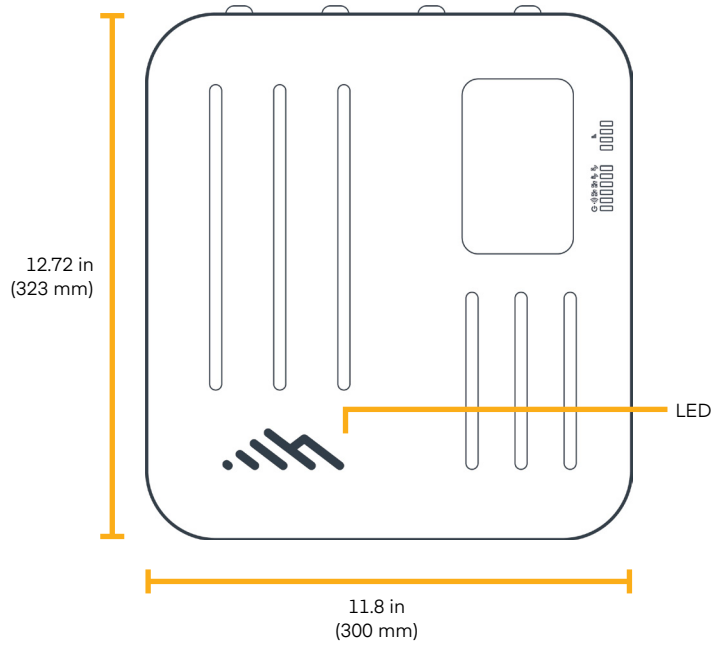
Enterprise-Class Modem Specifications

SPECIFICATION	W2005-5GB — OUTDOOR
Technology:	5G NR (low/mid-band FR1) and 4G LTE Category 20 LTE-Advanced Pro with Dual Connectivity — Dual SIM slots, mini 2FF form factor
Carrier Aggregation:	LTE only; up to 7CA downlink, 2CA uplink ENDC 5G + LTE; downlink and uplink supported. Refer to the Modem Carrier Aggregations article.
Peak Downlink Rates:	Up to 4.14 Gbps — based on 20 Layers LTE + TDD (100 MHz BW, 256 QAM, 4x4)
Peak Uplink Rates:	Up to 660 Mbps — based on 2 Layers LTE + TDD (100 MHz BW, 256 QAM, SISO)
MIMO:	4x4 MIMO
QAM:	Up to 256 — FR1
LTE Bands:	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B46, B48, B66, B71
5G NR Bands:	n1, n2, n3, n5, n28, n41, n66, n71, n77, n78, n79
WCDMA Bands:	B1, B2, B3, B4, B5, B6, B8, B9, B19
Power:	LTE only; 23 dBm ± 1 (typical conducted) ENDC 5G + LTE; 20 dBm ± 1 (typical conducted)
Antennas:	N-type female connectors, external 600 MHz - 6 GHz cellular paddle antennas (Qty 4, included)
GNSS:	Passive GNSS (multiplex with DIV0/MIMO2 antenna ports)
SMS:	Yes
Regulatory:	FCC (U.S.), IC (Canada), CE (EU), RCM (AU/NZ)
Required Carrier Certifications*:	PTCRB (U.S., Canada), GCF (Worldwide)
Network Operator Certifications*:	AT&T, Verizon

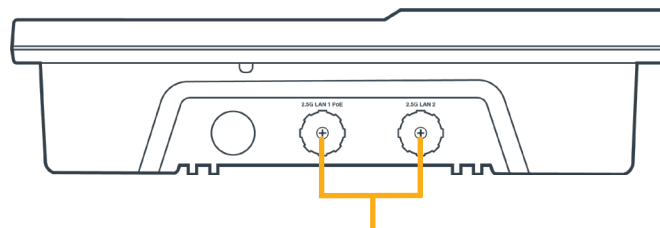
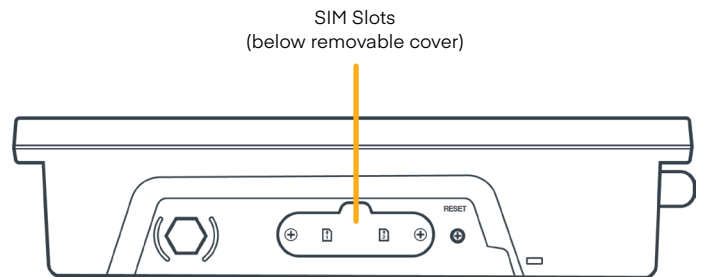
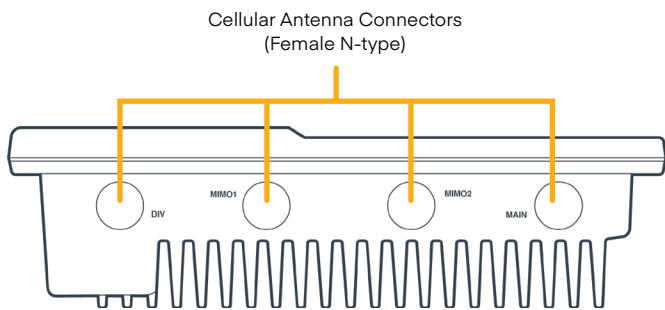
* Cellular carriers and operators throughout the world may only require telecom industry certifications, like PTCRB or GCF, to operate on their network. Some carriers require additional testing and approval, beyond telecom certifications, to operate on their network. A carrier listed in the approvals section means Cradlepoint completed additional testing and acquired technical approval for that given carrier. Any carrier not listed may not require additional testing or approval beyond telecom industry certifications to operate on their network.

Hardware

Physical Measurements



Sides



2.5 Gigabit Ethernet (GbE) Ports with Waterproof Gland Assembly

Ordering Guide

NetCloud Branch 5G Adapter Essentials + Advanced packages and plans full featured for 5G performance and connectivity. Essentials + Advanced packages include 24x7 support (phone support: 24 hour weekdays with emergency response on weekends, web: 24x7, chat: 24x5) and a limited lifetime warranty.

See additional details of what is included in the Essentials + Advanced NetCloud software: cradlepoint.com/netcloud-service

For more details on the W-Series Adapters, included with the Essentials + Advanced Packages, see below.

NetCloud Package & Plans

REGION	DESCRIPTION	PART NUMBER
North America: U.S. & Canada	NetCloud Branch 5G Adapter Essentials Plan, Advanced Plan, and W2005 Outdoor Adapter (5GB modem), NA	BEAx-20055GB-GN
Europe: European Union (EU), United Kingdom (UK)	NetCloud Branch 5G Adapter Essentials Plan, Advanced Plan, and W2005 Outdoor Adapter (5GB modem), EU	BEAx-20055GB-GE
	NetCloud Branch 5G Adapter Essentials Plan, Advanced Plan, and W2005 Outdoor Adapter (5GB modem), UK	BEAx-20055GB-GU
Asia Pacific: Asia-Pacific (AP), Australia, & New Zealand (NZ)	NetCloud Branch 5G Adapter Essentials Plan, Advanced Plan, and W2005 Outdoor Adapter (5GB modem), AP	BEAx-20055GB-GP
All Regions:	Renewal NetCloud Branch 5G Adapter Essentials Plan and Advanced Plan	BEAx-NCEA-R

x = 1, 3, or 5 years

Accessories

INCLUDED	PART NUMBER
W2005-5GB Outdoor 5G Wideband Adapter	
— 802.3bt 90 W PoE Injector	N/A
— Cellular antenna, outdoor 5G Low/Mid Band with N type connector (Qty. 4)	N/A
— Outdoor mounting plate	N/A
— Pole mount clamp	N/A
— Plate to assembly mounting screws & washers	N/A
— Plate to W2005 mounting screws	N/A

Support & Warranty

The W-Series Adapters are only sold as components of Branch 5G Adapter Essentials + Advanced Packages.

- NetCloud Packages include support for the full subscription term.
- All Cradlepoint hardware products are covered by a limited lifetime warranty for as long as they have a subscription license to an active NetCloud Service Plan.

Find the most up-to-date information at [cradlepoint.com/w2005](https://www.cradlepoint.com/w2005)